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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,076	08/04/2003	Robert Dean Irwin	DN2002154	5237

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THE GOODYEAR TIRE & RUBBER COMPANY
INTELLECTUAL PROPERTY DEPARTMENT 823
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EXAMINER


HAMILTON, ISAAC N

ART UNIT PAPER NUMBER

3724

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/634,076	Applicant(s) IRWIN ET AL. 	
	Examiner Isaac N Hamilton	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>08/04/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cavity in claim 1, line 5, and the distance X in claim 4, line 1, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

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2. The abstract of the disclosure is objected to because the title should not be in the abstract, and the numbers of the specific elements should be in parentheses. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. The claims are objected to because they include a reference characters X which is not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the thread" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Stashko (4,934,880). Stashko discloses cutting head in figures 2 and 3; axis of rotation 20; blade mounting surfaces 45; blades 60; cavities 40; high speed motor is inherent in an end mill tool; each surface 45 is separated by 60 degrees, which means every alternate surface is 120 degrees apart from the last; distance X is between 20 and 45. Z axis servo motors are inherent in an end mill as taught by Elrod et al (5,941,663) in column 1, lines 23-28.
8. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Getts (3,213,716). Getts discloses cutting head 10; axis of rotation A; blade mounting surfaces 17; blades in figure 4; cavities in figure 7, wherein chips 29 are located; high speed motor is inherent in boring machines; servo motors are inherent in boring machines; 120 degrees in figure 2; distance X is between A and 17; conical in shape 25, 22; largest diameter cutting edge juxtaposed 25 and 22.
9. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hooser (5,365,986). Hooser discloses cutting head 40; axis of rotation at the center of element 44; blade mounting surfaces 66 on elements 43, 45, 47; blades 64; cavity juxtaposed elements 45, 60, 47, 54, 43, 48; cavities are juxtaposed every adjacent elements 48, 50, 54, 56, 60, 62, 46, 52, 58; high speed motor in column 2, lines 2-5; 120 degrees in column 2, lines 64-67; distance X is between 66 and 44; conical in shape 82, 80, 78; largest diameter cutting edge 88.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. To the degree it can be argued that servo motors are not inherent in milling machines, claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stashko in view of Elrod et al, hereafter Elrod. Stashko discloses everything as noted above, but does not disclose a z axis servo motor. However, Elrod teaches z axis servo motor in column 1, lines 23-28. It would have been obvious to provide a z axis servo motor in Stashko as taught by Elrod in order to automate the process of milling.

12. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stashko. Stashko discloses the claimed invention except for a distance X being less than 1 inch and X is 0.5 inches. It would have been an obvious to one of ordinary skill in the art to provide the elements mentioned above for the purpose of maximizing cutting efficiency for different materials, such as, plastic, paper, rubber, wood, cardboard, and metal. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

13. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Getts. Getts discloses the claimed invention except for a distance X being less than 1 inch, X is 0.5 inches, and an edge diameter of 0.75 inches. It would have been an obvious to one of ordinary skill in the art to provide the elements mentioned above for the purpose of maximizing cutting efficiency for different materials, such as, plastic, paper, rubber, wood, cardboard, and metal. It has been held that discovering an optimum value of a result effective variable involves only routine skill

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in the art. Such a modification would have involved a mere change in the size of a component.

A change in size is generally recognized as being within the level of ordinary skill in the art.

14. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hooser.

Hooser discloses the claimed invention except for a distance X being less than 1 inch, X is 0.5 inches, and an edge diameter of 0.75 inches. It would have been an obvious to one of ordinary skill in the art to provide the elements mentioned above for the purpose of maximizing cutting efficiency for different materials, such as, plastic, paper, rubber, wood, cardboard, and metal. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. Such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Izumi is cited for a conical circular shaped blade; Hickman is cited for blades at 120 degrees.

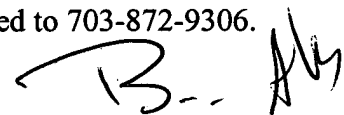
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 571-272-4509. The examiner can normally be reached on Monday thru Friday between 8am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306.



IH

December 10, 2004


BOYER ASHLEY
PRIMARY EXAMINER